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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JACOB TAYLOR, CLINTON ORAM, and JOHN ROBERTS

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Appeal 2015-006190  
Application 11/640,053  
Technology Center 2400

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Before JOHN A. JEFFERY, ST. JOHN COURTENAY III, and  
JOYCE CRAIG, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1, 2, 4, 5, and 7–14. Claims 3, 6, and 15–35 were cancelled, and claims 36–53 were withdrawn. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants' invention is a customer relationship management (CRM) system comprising a computing system, database, and different modules that access the database to retrieve data therefrom. The system uses a base class, known as "SugarBean," with methods for building list queries, as well as

saving and retrieving items. At least one SugarBean subclass exists for each module to provide module-specific details. *See generally* Spec. 5–6, 10;

Fig. 1. Claim 1 is illustrative:

1. A customer relationship management (CRM) system, comprising:
  - a computing system comprising at least one computer with memory and at least one processor;
  - a database coupled to the computing system;
  - multiple different modules of a CRM application executing in the computing system that access the database to retrieve data therefrom in response to requests from clients communicatively coupled to the host computing system over a computer communications network and to provide to the clients a user interface containing information relating to the retrieved data; and
  - a base class stored in memory of the computing system, the base class comprising computer usable program code in a data structure defining at least three methods, the methods comprising a method programmed to build list queries, a method programmed to save individual data items and a method programmed to retrieve individual data items, wherein each of the different modules further comprises an instance of a subclass of the base class.

## THE REJECTIONS

The Examiner rejected claim 1 under 35 U.S.C. § 103(a) as unpatentable over Bayer (US 8,150,728 B1; Apr. 3, 2012) and Ahad (US 7,024,656 B1; Apr. 4, 2006). Ans. 2–5.<sup>1</sup>

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<sup>1</sup> Throughout this opinion, we refer to (1) the Appeal Brief filed January 12, 2015 (“App. Br.”); (2) the Examiner’s Answer mailed April 3, 2015 (“Ans.”); and (3) the Reply Brief filed June 3, 2015 (“Reply Br.”).

The Examiner rejected claim 2 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Varasano (US 2005/0165829 A1; July 28, 2005). Ans. 5–6.

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Denis (US 2008/0215727 A1; Sept. 4, 2008). Ans. 6–7.

The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, Denis, and Kinsley (US 2007/0026942 A1 Feb. 1, 2007). Ans. 7–8.

The Examiner rejected claim 7 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Ronnewinkel (US 2005/0228790 A1; Oct. 13, 2005). Ans. 9–10.

The Examiner rejected claims 8, 9, and 14 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Clark (US 2006/0112123 A1; May 25, 2006). Ans. 10–11.

The Examiner rejected claim 10 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Matthews (US 2003/0050986 A1; Mar. 13, 2003). Ans. 12.

The Examiner rejected claim 11 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Wolf (US 2006/0015533 A1; Jan. 19, 2006). Ans. 12–13.

The Examiner rejected claim 12 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Smirnov (US 2003/0097383 A1; May 22, 2003). Ans. 14.

The Examiner rejected claim 13 under 35 U.S.C. § 103(a) as unpatentable over Bayer, Ahad, and Sanches (US 2003/0018510 A1; Jan. 23, 2003). Ans. 15.

#### THE OBVIOUSNESS REJECTION OVER BAYER AND AHAD

The Examiner finds that Bayer's CRM system has a computing system, a database coupled thereto, and different CRM application modules that perform the recited functions. Ans. 2–3. Although the Examiner acknowledges that Bayer lacks the recited base class, where each module comprises an instance of a subclass of the base class, the Examiner cites Ahad's persistent agent functionality as teaching this feature in concluding that the claim would have been obvious. Ans. 3–5.

Appellants argue that the Examiner's reliance on Ahad's "PersistentAgent" interface in connection with the recited base class limitation is misplaced. App. Br. 3–10; Reply Br. 2–10. According to Appellants, Ahad's PersistentAgent interface is not a class, but an interface from which a class may be defined. App. Br. 5–6. Appellants add that, not only does this interface lack the three recited methods defined by the base class, Ahad does not disclose an instance of a subclass of the base class in each CRM application module as claimed. App. Br. 8–10; Reply Br. 8–10.

#### ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Bayer and Ahad collectively would have taught or suggested a base class defining the three recited methods, where each module comprises an instance of a subclass of the base class?

## ANALYSIS

We begin by noting that Appellants' summary of the claimed subject matter on pages 2 and 3 of the Appeal Brief is inconsistent with the language of claim 1 in this appeal. *Compare* App. Br. 2 (referring to an apparatus for updating deployment of a software application having different modules, where the apparatus includes, among other things, a data gathering unit and aggregation computer) *with* App. Br. 11 (Claims App. Claim 1) (reciting a CRM system lacking those specific elements). Although we interpret claim 1 in light of the Specification, Appellants' failure to identify the limitations of claim 1 at issue in this appeal, let alone the correct citations from the Specification corresponding to those limitations, makes our task of interpreting claim 1 all the more difficult.

Turning to the rejection, we first note that the Examiner's reliance on the primary reference to Bayer—including its teachings regarding multiple different CRM application modules—is undisputed. Nor do Appellants dispute the cited references' combinability. Rather, as noted above, this dispute turns solely on the Examiner's reliance on Ahad for teaching the recited base class limitation.

Claim 1 recites, in pertinent part, a stored base class with code defining at least three methods that are not only programmed to build list queries, but also save and retrieve individual data items. Claim 1 also requires that each CRM module comprises an instance of a subclass of the base class.

In the rejection, the Examiner refers to Ahad's "persistent agent" functionality in connection with the base class limitation. Ans. 4. Ahad's

system ensures object persistence so that an object's lifetime exceeds that of the process that creates or accesses the object—a useful property for those objects instantiated in one process that carry information needed by other processes. Ahad, col. 1, ll. 23–30. To this end, persistent agents, namely objects that map programming language constructs to a database model, are created for every class whose instances need to persist. Ahad, col. 2, l. 65 – col. 3, l. 8.

In one embodiment, a persistent agent is an instance of a class that implements a persistent agent interface of an application programming interface (API) for applications to store and retrieve objects persistently. Ahad, col. 3, ll. 9–13. In one aspect, objects are stored persistently in a persistent object store in a “session” created via a PersistentObjectStore interface in Ahad's Table 1. Ahad, col. 7, l. 57 – col. 8, l. 18. Persistent agents are then created via the persistent object store session (“POSSession”) interface in Ahad's Table 2. Ahad, col. 8, l. 19–54. Upon instantiation, a persistent agent for a particular class can then be used to store and retrieve objects persistently that belong to that class via the PersistentAgent interface in Ahad's Table 3. Ahad, col. 9, l. 39 – col. 10, l. 67. To that end, various methods associated with the PersistentAgent interface are invoked, including “store(),” “retrieve(),” and “getPrimaryKeyFields(),” the latter of which returns a list of fields in the object constituting a primary key. Ahad, col. 10, ll. 13–59.

In the rejection, the Examiner finds Ahad instantiates a persistent agent *class* that defines the three recited methods, including building queries by first invoking the above-noted getPrimaryKeyFields() method before issuing a structured query language (SQL) query. Ans. 4. Our emphasis

underscores that it is the instantiated persistent agent *class* that the Examiner relies upon for teaching the recited base class—not the PersistentAgent *interface* in Ahad’s Table 3 as Appellants contend. App. Br. 5–6; Reply Br. 5. *Accord* Ans. 17 (“Nowhere in the Final Office Action has the examiner mapped the claimed base class to the ‘persistent agent’ interface shown in Table 3.”).

Nevertheless, Appellants acknowledge that this interface is implemented by a corresponding PersistentAgent *class*; thus, it is undisputed that such a class exists. *See* App. Br. 8 (agreeing with the Examiner that Ahad’s persistent agent interface in Table 3 is implemented by a class); *see also* Reply Br. 5 (noting that Ahad’s “createPersonalAgent()” method is used to create an instance of a PersistentAgent class that implements the PersistentAgent interface); Reply Br. 6 (acknowledging that Ahad’s PersistentAgent interface is implemented by the corresponding PersistentAgent class).

To be sure, Ahad is short on specifics regarding the particulars of this class, let alone that it is a base class divided into subclasses as Appellants indicate (Reply Br. 5, 8). But we nevertheless see no reason why a persistent agent base class could not be so divided, particularly in light of the known subclass-derivation techniques noted by the Examiner in, for example, Ahad’s column 2, lines 26 to 29. *See* Ans. 4, 18. Although this passage indicates that classes can be derived from a persistent *object* base class—not a persistent *agent* base class—we nonetheless see no reason why such a teaching could not be applied to a persistent agent base class to derive subclasses therefrom—a predictable result. *See KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007). That Ahad discusses known class-



inheritance techniques in connection with languages such as JAVA in column 2, lines 29 to 35 only bolsters the notion that instantiating subclasses of a persistent agent base class as the Examiner proposes would have been at least an obvious variation.<sup>2</sup>

We also see no error in the Examiner’s findings that Ahad at least suggests that the persistent agent base class defines at least three methods via its associated interface, namely (1) storing objects; (2) retrieving objects; and (3) building list queries via the “store()” “retrieve()” and “getPrimaryKeyFields()” methods, respectively. Ahad, col. 10, ll. 13–59. Notably, the latter method returns a list of fields in the object constituting a primary key (Ahad, col. 10, ll. 57–59) which, as the Examiner explains, is invoked before issuing an SQL query. Ans. 4. Despite Appellants’ arguments to the contrary (Reply Br. 8–9),<sup>3</sup> Appellants do not persuasively rebut the Examiner’s findings in this regard.

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<sup>2</sup> Although the Examiner also refers to the Sanches reference as additional evidence of base-class subclasses (Ans. 4)—a reference that was cited solely to reject claim 13 (Ans. 15)—we decline to consider that extraneous reference here, for it was not relied upon to reject claim 1. *See In re Hoch*, 428 F.2d 1341, 1342 n.3 (CCPA 1970) (“Where a reference is relied on to support a rejection, whether or not in a ‘minor capacity,’ there would appear to be no excuse for not positively including the reference in the statement of the rejection.”).

<sup>3</sup> Although Appellants appear to admit that Ahad’s “retrieve() method *does* ‘build list queries’” on page 9 of the Reply Brief (emphasis added), this somewhat puzzling statement may be a typographical error when read in context. In any event, Appellants’ arguments regarding the alleged shortcomings of Ahad’s retrieve method are not germane to the Examiner’s reliance on Ahad’s “getPrimaryKeyFields()” method for teaching building list queries in the rejection. *See* Ans. 4.

Lastly, we find unavailing Appellants' contentions regarding *Ahad's* alleged shortcomings pertaining to instantiating a subclass of the base class in each CRM application module as claimed. App. Br. 8–10; Reply Br. 8–10. Notably, the Examiner's rejection is not based on *Ahad* alone, but rather the collective teachings of Bayer and *Ahad*—the former's teachings regarding multiple different CRM application modules being undisputed as noted previously. In short, Appellants do not persuasively rebut the Examiner's finding that instantiating a subclass of a persistent agent base class, such as that in *Ahad*, in each module of Bayer would have been at least an obvious variation. Therefore, Appellants' arguments regarding *Ahad's* individual shortcomings in this regard do not show nonobviousness where, as here, the rejection is based on the cited references' collective teachings. *See In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Therefore, we are not persuaded that the Examiner erred in rejecting claim 1.

#### THE OTHER OBVIOUSNESS REJECTIONS

We also sustain the Examiner's obviousness rejections of claims 2, 4, 5, and 7–14. Ans. 5–15. Because Appellants do not contest these rejections separately, we summarily sustain those rejections. *See* MPEP § 1205.02 (“If a ground of rejection stated by the examiner is not addressed in the appellant's brief, appellant has waived any challenge to that ground of rejection and the Board may summarily sustain it, unless the examiner subsequently withdrew the rejection in the examiner's answer.”).

CONCLUSION

The Examiner did not err in rejecting claims 1, 2, 4, 5, and 7–14 under § 103.

DECISION

The Examiner's decision rejecting claims 1, 2, 4, 5, and 7–14 is affirmed.

AFFIRMED